The NASA Mars Program - Science Strategy R. Stephen Saunders
Jet Propulsion Laboratory
Mail Stop 183-335
4800 Oak Grove Drive
Pasadena, Ca91 109

NASA has formulated a strategic framework for Mars exploration. The approach is to explore Mars along three thematic lines: search for life, understand climate history, and map resources and geology/geophysics. I-he strategy is to first obtain global geochemical and mineralogic maps of Mars from orbit. The second step is to characterize and explore sites using rovers that are capable of selecting samples of rock and soil. The third step is to land at one of the previously explored sites, collect a sample and return it to Earth. This strategy will be implemented in a series of missions that include a lander and orbiter in 2001 and in 2003 and the first sample return in 2005." The site selection strategy is to first explore a region of ancient highlands that has evidence for subsurface hydrothermal mineralization. The lanolin: site could be on the ejecta of a recent impact crater that has excavated fresh rocks. A second site would emphasize somewhat later fluvial or lacustrine deposits that might have harbored life that appeared earlier. A third site would be in a place where there is present day hydrothermal activity in the subsurface to search for extant life.

Stew Saunders Mail Stop 183-335 Jet Propulsion laboratory 4800 Oak Grove Drive Pasadena, CA 91109 818354 2867